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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/706,175	11/10/2003	Chih-Yu Li		6152

7590 05/15/2006
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EXAMINER	
KNIGHT, DEREK DOUGLAS	
ART UNIT	PAPER NUMBER
3681	

DATE MAILED: 05/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/706,175

Applicant(s)

LI, CHIH-YU

Examiner

Derek D. Knight

Art Unit

3681

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.
2. The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details. Please reduce the number of words in the abstract to be within the limits set forth above.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc. In line 1 of the abstract, please remove, "This invention relates to" and capitalize "a".

The abstract of the disclosure is objected to because on page 8, line 6-7 the sentence should read, "The locating seat". Correction is required. See MPEP § 608.01(b).

3. The disclosure is objected to because of the following informalities: On page 4 lines 11 and 12 the term “fixing bolt” should be replaced with “extending post”. On page 4 line 12 the “through hole 12” is miss numbered. It appears that the “through hole” should be feature number 122, however, the feature that 122 references in Figures 3-5 resembles a protrusion, not a hole. On page 6, line 1; “the aperture” should be reference number 23, not 221. Appropriate correction is required.

Claim Objections

4. Claim 1 is objected to because of the following informalities:
- a. Line 3, “steering wheel” should be a steering wheel shaft
 - b. Line 4, 7, and 11, “at least one or more” should be changed to one or more or at least one
 - c. Line 6, “steering wheel shaft” should be steering wheel
 - d. Line 8, “sat” should be seat
 - e. Line 13, “form ed” should be formed
 - f. Line 16, according to MEPEP 608.01(m) each claim is to be one sentence, therefore, “Once” should be changed to “once”
 - g. Line 16, “compression” should be compression spring

Appropriate correction is required.

Drawings

5. The drawings are objected to under 37 CFR 1.83(a) because Figure 1 or 2 fail to show the steering wheel shaft (10) as described on page 4, line 4 the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d).

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: 41 and 122.

7. The drawings are objected to because in Figures 3, 4, and 5, reference number (1) appears to be pointing to the steering column (10) and not the locating seat (1). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the

applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Papandreou (US 6,318,756), in view of Larralde (US 3,628,812).

The Papandreou patent teaches:

- a. A removable steering wheel (12) having an instant connection mechanism, as shown in Figure 1 of the patent.
- b. A locating seat (140) as shown on Figure 8
- c. The locating seat (140) having an extending post (14)
- d. The circumference of the extending post (14) having a groove (124)
- e. A connection hub (52) connected to the steering wheel (12)
- f. The connection hub (52) having a center hole (64)
- g. The circumference of the connection hub having at one or more apertures (338)
- h. The extending post (14) of the locating seat (140) inserted into the center hole (64) as shown in Figure 9

- i. A control collar (320) installed on the outer circumference of the connection hub
- j. The inner circumference of the control collar (320) having a pushing surface (328)
- k. A compression spring (340) installed between the connection hub (52) and the control collar (320)

The Papandreou patent (US 6,318,756) lacks in teaching the use of elastic pieces to form a connection between the locating seat and the connection hub.

The Larralde patent (US 3,628,812) teaches; a plurality of elastic pieces (40) installed between a locating seat (20) and a connection hub (70) with one end of the elastic pieces (40) being fixed to the connection hub (70) and the other end being formed into a hook part (46).

It would be obvious to one having ordinary skill in the art at the time of invention to modify Papandreou (US 6,318,756) such that the connection is formed by elastic pieces as taught by Larralde (IS 3,628,812), in order to create a device that enables firm and quick connection to a shaft, without the possibility of premature wear of the connection mechanism as with quick connection devices that use ball bearings in the place of the elastic pieces with hooks formed in their ends.

The combined invention would function as follows; the compression spring would supply force on the control collar, pushing it forward, causing the pushing surface to press on the hook part of the elastic piece, thus pushing it into the groove of the locating seat, making a fast and firm connection.

Facsimile Transmission

10. Submission of your response by facsimile transmission is encouraged. Group 3600's facsimile number is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase a patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as the PTO's mail room processing and delivery time. For a complete list of correspondence not permitted by facsimile transmission, see MPEP 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee which applicant is paying by check should not be submitting by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to the Patent and Trademark Office (Fax No. (571) 273-8300) on _____ (Date)

Typed or printed name of person signing this certificate:

(Signature)

If your response is submitted by facsimile transmission, you are hereby reminded that the original should be retained as evidence of authenticity (37 CFR 1.4 and MPEP 502.02). Please do not separately mail the original or another copy unless required by the Patent and Trademark Office. Submission of the original response or a follow-up copy of the response after your response has been transmitted by facsimile will only cause further unnecessary delays in the processing of your application; duplicate responses where fees are charged to a deposit account may result in those fees being charged twice.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Derek D. Knight whose telephone number is (571) 272-7951. The examiner can normally be reached on Mon - Thursday & every other Friday, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles A. Marmor can be reached on (571) 272-7095. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DDK

Charles A. Marmor 5/12/06
CHARLES A. MARMOR
SUPERVISORY PATENT EXAMINER
ART UNIT 3681